Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended.) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor comprising an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

2. (Currently amended.) The method of claim 1 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor comprising an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19.

3. (Currently amended.) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor consisting of an endogenous human ARE-2

polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

4. (Currently amended.) The method of claim 3 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor consisting of an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19.

5.(Original) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor comprising the polypeptide of SEQ ID NO:20, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

6. (Original) The method of claim 5 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor, said receptor comprising the polypeptide of SEQ ID NO:20.

7. (Original) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor consisting of the polypeptide of SEQ.ID.NO.:20, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

8. (Original) The method of claim 7 wherein said host cell comprises an expression vector, said expression vector comprising a polynucelotide encoding a G protein-coupled receptor, said receptor consisting of the polypeptide of SEQ.ID.NO.:20.

9. (Currently amended.) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor comprising an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, and wherein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is substituted with another amino acid, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

10. (Currently amended.) The method of claim 9 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor comprising an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, and wherein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is substituted with another amino acid.

11. (Currently amended.) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor consisting of an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent con ditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, and wherein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is substituted with another amino acid, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

12. (Currently amended.) The method of claim 11 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor consisting of an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, and wherein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is substituted with another amino acid.

13. (Original) A method of claim 9 whe rein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is glycine and wherein the glycine at said amino acid position 285 is substituted with an amino acid other than glycine.

14. (Original) The method of claim 13 wherein said amino acid other than glycine is lysine.

15. (Currently amended.) The method of claim 13 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor comprising an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, wherein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is glycine and wherein the glycine at said amino acid position 285 is substituted with an amino acid other than glycine.

16. (Original) The method of claim 15 wherein said amino acid other than glycine is lysine.

17. (Original) A method of claim 11 w herein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is glycine and wherein the glycine at said amino acid position 285 is substituted with an amino acid other than glycine.

18. (Original) The method of claim 17 wherein said amino acid other than glycine is lysine.

19.(Currently amended.) The method of claim 17 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor consisting of an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by performing nucleic acid hybridization, under stringent conditions, on a sample of human DNA library using specific probe EST clone 68530, or wherein said endogenous human ARE-2 polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, wherein the amino acid at amino acid position 285 of said endogenous human ARE-2 polypeptide is glycine and wherein the glycine at said amino acid position 285 is substituted with an amino acid other than glycine.

20. (Original) The method of claim 19 wherein said amino acid other than glycine is lysine.

21. (Original) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor comprising the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

22. (Original) The method of claim 21 wherein the glycine at amino acid position 285 is substituted with lysine.

23. (Original) The method of claim 21 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor comprising the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine.

24. (Original) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor consisting of the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

25. (Original) The method of claim 24 wherein the glycine at amino acid position 285 is substituted with lysine.

26. (Original) The method of claim 24 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor consisting of the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine.

27. (Original) A method of modulating the functionality of a G protein-coupled receptor comprising an endogenous human ARE-2 polypeptide, wherein said endogenous human ARE-2 polypeptide is encoded by a nucleotide sequence, said nucleotide sequence being obtainable by

performing nucleic acid hybridization on a sample of human genomic DNA using specific probe EST clone 68530, comprising the step of contacting the receptor with a modulator of the receptor.